

Project Summary

Provide a summary (one-page maximum) that describes key elements of the project and states the total project cost.

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Water quality is one of the most valuable assets of the Sierra Nevada region, and indeed the South Fork American River (SFAR) watershed. As the State continues to grow, resource managers need a better understanding of the effects of various recreational activities (a fast-growing management challenge) on water quality. The SFAR Water Quality and Recreation Study will contribute to regional knowledge through scientific analysis, and organizational and public outreach, complimenting partner work within the watershed and educating the region on the findings.

This project will build upon the baseline water quality data gained in the past three years by El Dorado Irrigation District (EID) at Silver Lake. Water quality data will be collected at locations throughout the SFAR watershed. The sampling sites will be determined by the project partners at a meeting in January, and the number of sites will be between 10 and 14. Samples will be collected at the same site each time, through a simple grab sampling method. Each sample will be analyzed for phosphorous and nitrate content, total coliform, and total E. coli. A maximum of 6 sites will have microbial source tracking (MST) analysis (coliform speciation).

Each site will be sampled before and after three holidays during the recreation season - Memorial Day, July 4th, and Labor Day. These holidays were chosen because they represent the variety of the recreational season. The pre-Memorial Day sampling represents a baseline, or control, as there is very little activity in the watershed before this time. EID has low reads for this time of year for past baseline activity. Timing is important when collecting water samples; samples gathered early in the recreation season, mid-season, and late-season enable the analysis to include variations in water quality based on temperature (E. coli is affected by temperature). The sampling regime includes before and after holidays because the project focuses on water quality responses to recreation. Getting a before- and after-holiday read helps the analysis to hone in on those effects, as there are high visitor counts during holiday weekends throughout the watershed.

The project will include a public outreach component. Basic data will be posted on kiosks near to the sampling sites, along with watershed information. The Watershed Education Day will add to this public education with an active component. The event will involve participants in the process of sample collection and problem analysis. In addition to public information and the Watershed Day, project partners will implement public meetings in which key stakeholders will be personally notified and the data and analysis will be publically discussed.

Regional/organizational outreach is essential for the information export. The grant will help to pay for this outreach, which will be completed in the form of two yearly and one final report circulated to regional water and land managers. Outreach will also involve a presentation of the findings at one of the many annual California water conferences (at the end of the two year project).